

Case Study
School District of
Greenville County
South Carolina

“In a survey conducted by the School District of Greenville County, 99 percent of participants said they would recommend the Intel® Teach Essentials Course to other teachers and 100 percent said they can now successfully create units that integrate technology.”

Dr. Phinnize Fisher
School District of Greenville
County Superintendent

Technology Integration Helps South Carolina District Improve Teaching and Learning

Large, diverse school district integrates technology into instruction to better meet changing economic needs, and adhere to No Child Left Behind standards

Grade Level	K-12
Educational Challenge	Surround capital improvement with teaching staff trained to effectively integrate the new technology into teaching and learning
Solution Methodologies	Committed leadership; effective staff development; administrative support

Seamless and Invisible Technology Integration

Across the sprawling 800 square miles that encompass the School District of Greenville County, South Carolina, educators are paying close attention to the characteristics of 21st century learners. “We know that our students are spending their own time on the Internet, using mobile phones, doing instant messaging, and playing video games,” observes Carol Sherron, a longtime teacher and administrator in the state’s largest district. “This is their world.”

To better engage this plugged-in generation, Greenville is delivering an ambitious professional development effort focused on effectively integrating technology into teaching and learning. Dr. Phinnize (Penny) Fisher, Greenville superintendent, sees technology as an essential tool for the classroom. “Our vision for effective technology integration is that technology use in the classroom would be seamless and “invisible,” she explains.

The goal is nothing short of culture change, says Dr. Lonnie Luce, deputy superintendent for Greenville, the nation’s 63rd largest district. A catalyst for change is the Intel® Teach professional development program, which is reaching the entire teaching staff of 4,500. Intel Teach is part of the Intel® Education Initiative, a sustained commitment—in collaboration with government and educators worldwide—to equip students with the skills required for success in the knowledge-based economy.

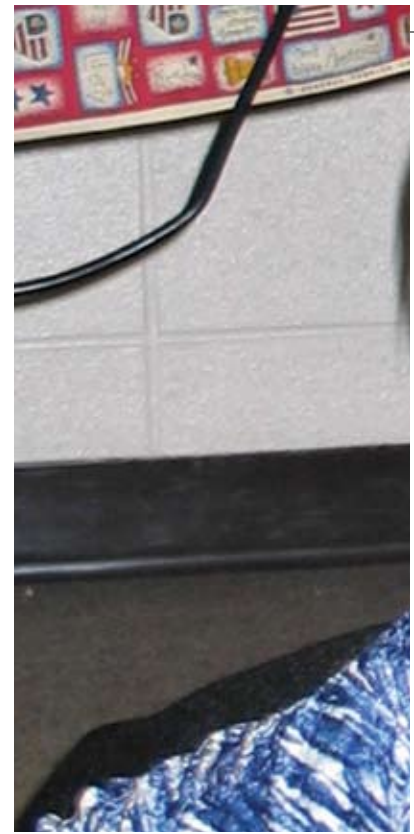
Meeting the Demands of the Knowledge Economy

The School District of Greenville County includes nearly 100 schools scattered across the foothills of the Blue Ridge Mountains. Enrollment is 63,000 and has been growing at a rate of 16 percent over the past decade.¹ Schools vary widely, from urban campuses with inner-city characteristics to schools that serve a rural population. 16 schools qualify for Title I status and receive additional federal support, and 32 percent of students across the district qualify for free or reduced-price lunch.² The student population is diverse: 62 percent white, 34 percent African American, and 3 percent Hispanic, with the percentage of students learning English as a second language on the rise.

During the past decade, economic development efforts have transformed Greenville County. This is South Carolina's Upcountry, a scenic region in the northwest corner of the state traditionally known for its mountains, lakes, hiking trails, and textile mills. Today, the county is also home to a growing number of international corporations, including BMW from Germany, Michelin from France, and Kyocera from Japan. According to the Greenville Area Development Corporation, the county leads the world in foreign investment per capita. The last seven years have brought more than \$3 billion in new capital investment to the county.³

The changing economy has meant new demands but also fresh opportunities for the school district. "Employers want our students to come out with technical skills," says Dr. Luce. "This community has stepped up to make sure that our students have the opportunities they need for the future." Through an ambitious capital improvement effort that touches nearly every school site, the district is building new schools and renovating older ones, complete with technology upgrades.

In addition, at the state level, South Carolina legislators, early adopters of high academic standards for students, recently passed a proviso stating that every teacher must be technology proficient by 2008. The proviso is part of South Carolina's compliance with federal education reforms mandated by the No Child Left Behind (NCLB) Act. The state leaves it to each local school district to define what technology proficiency means and how it will be demonstrated.



"Instructional technology can transform a classroom so that students are engaged in active learning."

Dr. Lonnie Luce
Deputy Superintendent
School District
of Greenville County



“The best part of the Intel® Teach Essentials Course was that I could apply the technology directly to the content areas that I teach in the classroom.”

School District of Greenville
County teacher survey response

Committed Leadership with a Common Vision

Fisher sees technology as a tool that “prepares learners to become productive members of an increasingly technical society.” That vision is shared by Luce. Luce came to Greenville in 2003 from Louisiana, where he was the technology officer for the 70,000-student New Orleans School District. His belief in technology as an essential tool for learning goes back to his days of teaching social studies in an inner-city high school classroom.

“When I was teaching, one of the biggest things I saw technology do was provide motivation. How do you make students excited about wanting to learn? Technology can help you catch kids you otherwise would not have caught,” he says. Used effectively, Luce adds, instructional technology can transform a classroom so that students are engaged in active learning. “I’ve seen it happen with my own students—technology helps students communicate their ideas and helps the teacher take learning further.”

Since he left the classroom to focus on leadership issues at the district level, Luce has honed his vision for effective use of educational technology.

He believes a district must address three essential questions in order to be successful:

- Do you have the proper infrastructure?
- Do you have the proper technical support?
- Do you have the proper instructional support?

“If any one of those three components is missing—hardware, technical support, or instructional support—then you’re going to be wasting money on everything else,” he says.



Solution: The Technology

In Greenville, the district has invested substantial energy and resources in the technology infrastructure—something that began before Luce arrived. He has continued to focus on hardware issues and increased efficiencies. Schools are being networked via fiber optics. Voice-over Internet phone service is now being installed on every teacher's desk, an effort that will bring the district substantial cost savings. Luce has worked with business leaders and other community stakeholders on long-term technology planning, which calls for ongoing investments to keep equipment up to date.

But as Luce points out, adequate hardware and technical support are only two pieces of the solution. He has also taken aggressive steps to increase the district's focus on instructional support so that all teachers will become more comfortable using technology to support learning goals.

The Training

When Luce arrived in Greenville, he took a look at what the district was already doing to build teacher proficiency with technology. He saw room for improvement in the area of integrating the technology into instruction. The instructional technology department was already offering modules that taught teachers to use specific software

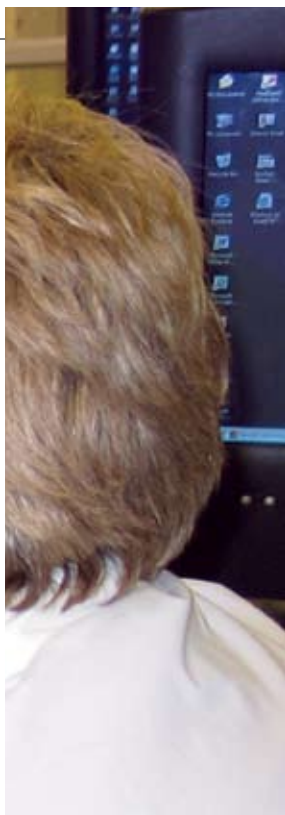
applications, "but it wasn't really tied into the curriculum," Luce said. "I wanted us to move toward helping teachers develop unit plans, so they would be using technology to meet standards."

Luce was impressed by the Intel® Teach Essentials Course, which provides 40 hours of instruction in the effective integration of technology into the classroom. The course stresses sound instructional planning and project-based learning to meet standards and equip students with 21st century skills—skills like technological literacy, problem solving, and critical thinking.

Luce also liked the train-the-trainer model, in which Master Teachers lead their colleagues in hands-on sessions in a computer lab. That model would help the district use its small instructional technology staff to implement a large-scale professional development effort. The use of essential questions to frame a unit was also a good fit in Greenville, where teachers have been trained in the use of questioning to guide instruction. Finally, Luce was impressed by the level of support available from Intel Teach, which offers curriculum materials and Master Teacher training as free resources to help guide schools toward effective technology integration. "We didn't have to go out and build something from scratch. This program included everything we needed," Luce said.

"I was able to discuss ideas with other teachers. I have found new ways to teach, integrate, and manage technology in my classroom."

School District of Greenville
County teacher survey response



Gaining Consensus

Luce's next step: "I had to sell this to my administration—the idea that having teachers take this course would meet our requirements for technology proficiency." He succeeded. The district agreed to make the 40-hour Intel Teach Essentials Course a mandatory requirement for teacher recertification.

Fisher explains why she supports the program: "South Carolina requires that all teachers demonstrate technology proficiency within their certificate renewal period. Intel Teach helps Greenville County Schools meet that requirement by providing curriculum and resources necessary to assist teachers in using technology effectively in the classroom."

Luce and his staff then tackled their next challenge: How to deliver the Intel Teach Essentials Course to all 4,500 teachers in the district.

Large-Scale Implementation

When Greenville introduced Intel Teach in the fall of 2003, Luce and his staff took deliberate steps to build broad teacher support for the program.

Jeff McCoy, district technology facilitator, was among the initial group of 15 trained as Master Teachers. "Many teachers in that first group already considered themselves technology proficient. They wondered, 'what can I learn from this?'" says McCoy, admitting that he considered that same question himself. "But I learned tons," he adds, "and I heard the same thing from other teachers, even the ones who have been using technology for a long time. The key thing was the concept of how to pull together a whole unit using various technologies. Previously, maybe we had used electronic presentation software for a book report, and another piece of software for a different kind of project. But the whole idea of technology integration throughout a big unit was new for many of us."

The district also supported the program by paying a \$3,000 stipend to Master Teachers who taught three sessions to their colleagues over the fall, spring, and summer months. In addition, the district offered an upgraded computer to any teacher who signed up for the 40-hour course that first fall. Not surprisingly, the first enrollees were the typical early adopters—teachers and instructional leaders who were already using technology in the classroom and wanted to learn more.

The combination of high interest and district incentives proved compelling. "That fall, all our classes filled, with 20 teachers in each one," recalls McCoy. That meant 300 teachers across the district were having the same sustained professional development experience. Another 300, plus an additional 100 Title I teachers, signed up for the spring semester. The district's instructional coaches and media specialists also participated in Intel Teach. So did the administrative staff involved in teacher evaluation.

Classes filled quickly again in summer, when teachers were offered a more intensive course schedule. The next fall and spring, Intel Teach classes were held once a week for 10 weeks, with each session lasting four hours. In the summer, teachers could opt for a two-week session, with four-hour classes each morning. The district offered no incentives to participating teachers for the summer session, but that didn't hamper enrollment. It took 13 summer sessions to meet demand.

By the end of the first year of implementation, the district had 1,200 educators who had completed Intel Teach. "That's enough," says Luce, "to start changing the culture." Specifically, the district goal was to train at least three teachers and an instructional coach from every school during that first year, so that teachers would have colleagues they could turn to for ongoing support and encouragement once they started implementing projects in their classrooms.

Analysis: Build Broad-Based Support

Getting teacher buy-in was a key strategy for launching Intel Teach. During the first year of implementation, the district made sure to involve teachers from all grade levels, from every corner of the district. In addition, the first-year implementation involved instructional coaches, media specialists, and the district administrative staff who are involved in teacher evaluation and subject-area leadership.

Every elementary and middle school, for example, has an instructional coach whose job includes providing curriculum resources, modeling effective lessons, and helping teachers integrate technology into the curriculum. Every high school has a curriculum resource teacher with a similar job description. By training these instructional leaders plus the media specialists, the district helped ensure that every school has a core of experts well-versed in the curriculum of the Intel Teach Essentials Course. As participants begin implementing their technology-rich unit plans in their own classrooms, they can find ongoing, collegial support at the school level.

Build Basic Skills

In such a large district, teachers have a wide range of proficiency levels when it comes to using computers. Greenville has taken steps to address the needs of those brand new to technology so that they are not frustrated or overwhelmed by the pace of the Intel Teach curriculum. A basic skills curriculum is available to teachers who need an introduction to software applications, or who want to build their comfort level with tasks such as saving files to the network. "If we see someone struggling (at the start of Intel Teach), we encourage them to first get the basic skills they need to be successful," McCoy explains.

Respond to Requests

Greenville gathers participants' comments about Intel Teach and uses this feedback to make program adjustments. For example, many teachers have suggested grouping participants by grade levels. Similarly, teachers taking the course during the school year prefer a location that's close to the school where they work. By enlisting more Master Teachers, Greenville has been able to be more responsive when it comes to accommodating scheduling requests. In addition, a second technology facilitator works exclusively with the district's 18 Title I schools.

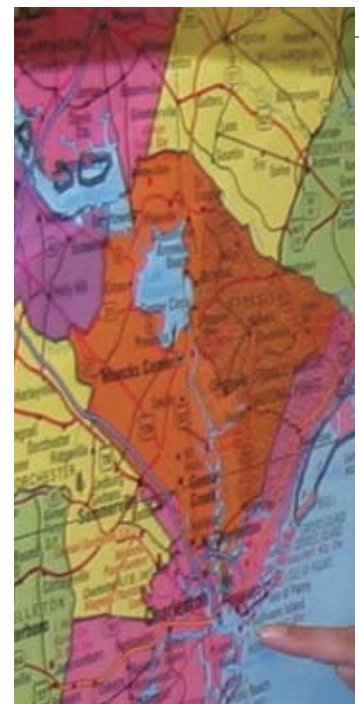
Use Online Registration Tools

When Greenville first introduced Intel Teach, scheduling was done by hand and with databases. The district has developed a Web-based registration tool which makes the process easier for participants as well as for program administrators. Master Teachers use the online registration tool to take attendance and to e-mail information or resources to participants. Eventually, the district hopes to expand online capabilities so that the Intel Teach unit plans created by participants can be uploaded and used by others.

Tie to Classroom Goals

Developing teachers' technology proficiency is not an end in itself in Greenville, but rather a step toward improving student achievement. Luce says that Intel Teach reinforces the question all educators must ask: "What are you trying to teach the students?" The curriculum focuses on planning units to meet standards, asking curriculum-framing questions, and developing effective assessment—all activities that tie directly to the day-to-day activities of the classroom. "Frankly, for some of our teachers, this is the best methods class they've had in a long time," Luce observes. By delivering this professional development experience across the entire district, he adds, "we have the opportunity to touch every single teacher. We have the chance to remind them to use the standards in unit planning, and to use these tools of technology to help engage their students and meet their learning goals."

Donna Ashmus, regional technology specialist for the South Carolina Department of Education, commends the Greenville district not only for the scope of this professional development effort, but also for the strong focus on effective instruction. She is also trained as a Master Teacher and sees Intel Teach as "good pedagogy. It supports good teaching practices." She sees teachers benefiting from the 40 hours to focus on developing a standards-based unit. "The longer, sustained course gives them the time they need. And they love collaborating with their colleagues. They don't get much time to work with other adults during the school day, and they love that." By the end of the course, Ashmus sees an increase in teachers' comfort level in using technology, and an eagerness to share their unit plans with colleagues and to implement them with their students.





Offer Sustained Professional Development

Teachers who complete the 40-hour course and want to extend technology integration can sign up for the Intel Teach Thinking with Technology Course. The course continues to build strategies for integrating technology by introducing teachers to a suite of interactive, online tools available on the Intel® Education Web site. McCoy expects Thinking with Technology will increase in popularity as more teachers become familiar with the online tools and the possibilities they offer for building students' higher-order thinking skills. The courses are taught by Master Teachers and build on the same approaches for curriculum planning and instruction that are introduced in the Intel Teach Essentials Course.

Tie Integration to Evaluation

As part of the district strategy to improve teaching and learning, Greenville is pioneering a new evaluation model that more closely ties teacher performance to student achievement. PAS-T, the Performance Assessment System for Teachers, developed with state approval, makes formal evaluation an ongoing process throughout a teacher's career rather than a one-time event at the annual contract stage. Once new teachers pass their initial evaluation and move to a continuing contract, they will be evaluated on a three-year cycle.

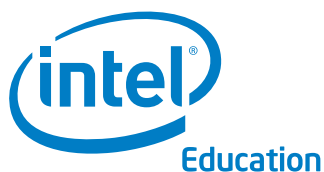
The performance indicators that evaluators look for mesh well with the research-based strategies reinforced by Intel Teach. Patty Fox, the Greenville administrator charged with overseeing teacher evaluation, explains that the district's vision of

teacher effectiveness encompasses everything from sound instructional planning based on standards, to a positive learning environment, to effective assessment. "If technology is being used, the teacher is not the only one using it. I'd hope to see student-centered learning and more student engagement," she adds, including student use of technology as a tool to support learning. A well-designed unit plan, developed during Intel Teach, can be an excellent exhibit for a teacher's performance portfolio, Fox adds. "That's where you want to showcase your best work."

Looking Ahead

A banner hangs above the front door of the district administrative office, promoting Greenville as the place "where enlightening strikes." It's an apt metaphor for what is happening in this large and diverse district. Enlightening is striking in every corner of the county as teachers learn new ways of engaging their students with technology.

"Sometimes, I'll hear from a teacher who says, 'I've been teaching the same way for 30 years. It's been working for me. Why should I change now?'" relates Ashmus. "We tell her, you haven't changed—but your students have. That's why we need to step up to the plate and learn new ways to reach our students." When technology is used effectively, Ashmus adds, "There's an energy in the classroom, for the teacher and the students. It's not necessarily easier to teach this way, but it's more worthwhile." She sees Greenville as a state leader in taking students and teachers toward this new vision of engaged learning. "We're watching Greenville closely," she says, "and we're excited to see where they're going."



Intel® Teach Program

The Intel Teach Program is a proven, worldwide professional development program that helps educators to improve the effective use of technology in the classroom to promote 21st century learning. The most successful educator professional development program of its kind, the program has been driving systemic change in teaching and learning since 2000, with over 3 million teachers trained in 35 countries.

Intel® Education Initiative

The Intel® Education Initiative is a sustained commitment to prepare students with the skills required to thrive in the knowledge economy. Through collaboration with educators and governments in more than 50 countries, Intel delivers programs that improve the effective use of technology to enhance 21st century learning, and encourage excellence in mathematics, science, and engineering. Intel's education programs are adapted to the needs of individual countries and utilize an approach focused on building local competency for teacher training and technology innovation.

- **For more information visit:** www.intel.com/education
- **For more information on the Intel Teach program, visit** www.intel.com/education/teach

¹"Fast Facts About Greenville County Schools." Downloaded from www.greenville.k12.sc.us/district/admin/stats/measures.asp#Numbers.

²"Characteristics of the 100 Largest Public Elementary and Secondary School Districts in the United States, 2000-2001," National Center for Education Statistics. Tables downloaded from http://nces.ed.gov/pubs2002/100_largest/table_13_2.asp and http://nces.ed.gov/pubs2002/100_largest/table_09_2.asp.

³Greenville Area Economic Development Corporation, www.greenvilleeconomicdevelopment.com.